



STATE OF MARYLAND

DMMH

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April 17, 2009

Public Health & Emergency Preparedness Bulletin: # 2009:14 Reporting for the week ending 04/11/09 (MMWR Week #14)

CURRENT HOMELAND SECURITY THREAT LEVELS

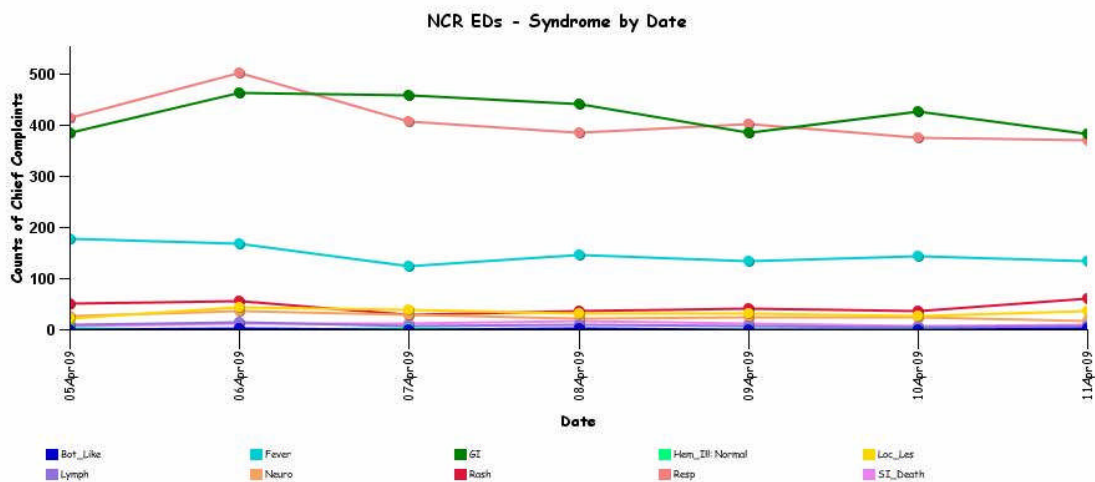
National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

SYNDROMIC SURVEILLANCE REPORTS

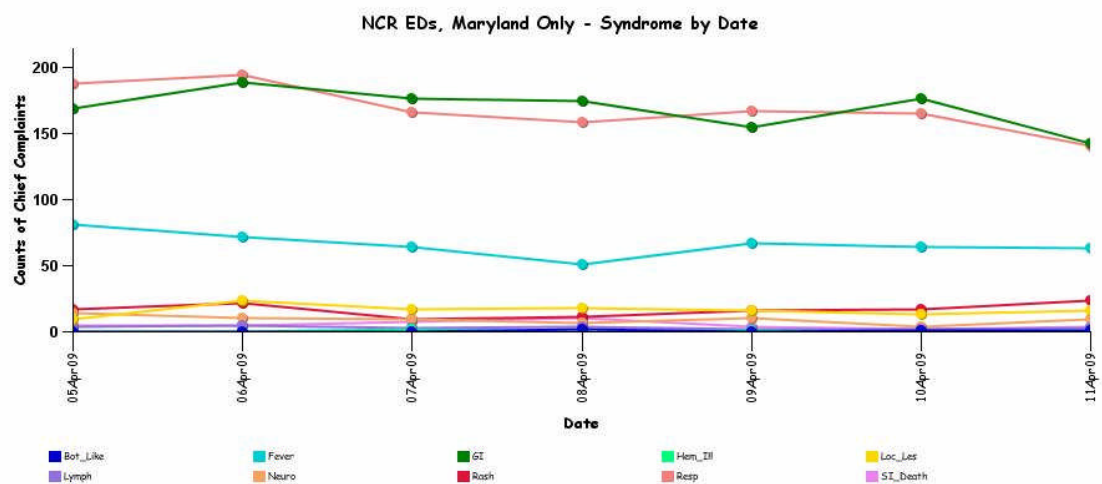
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

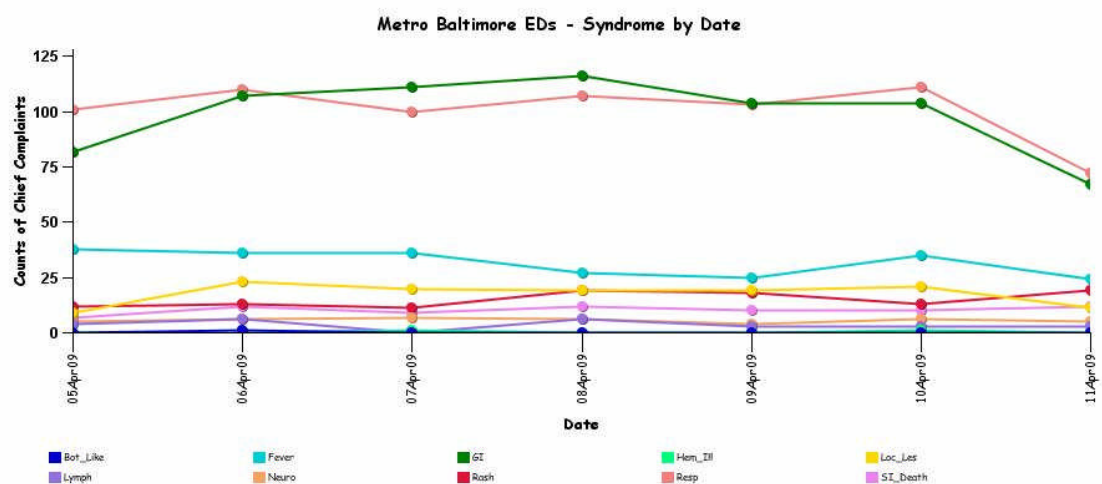
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system.



* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system.

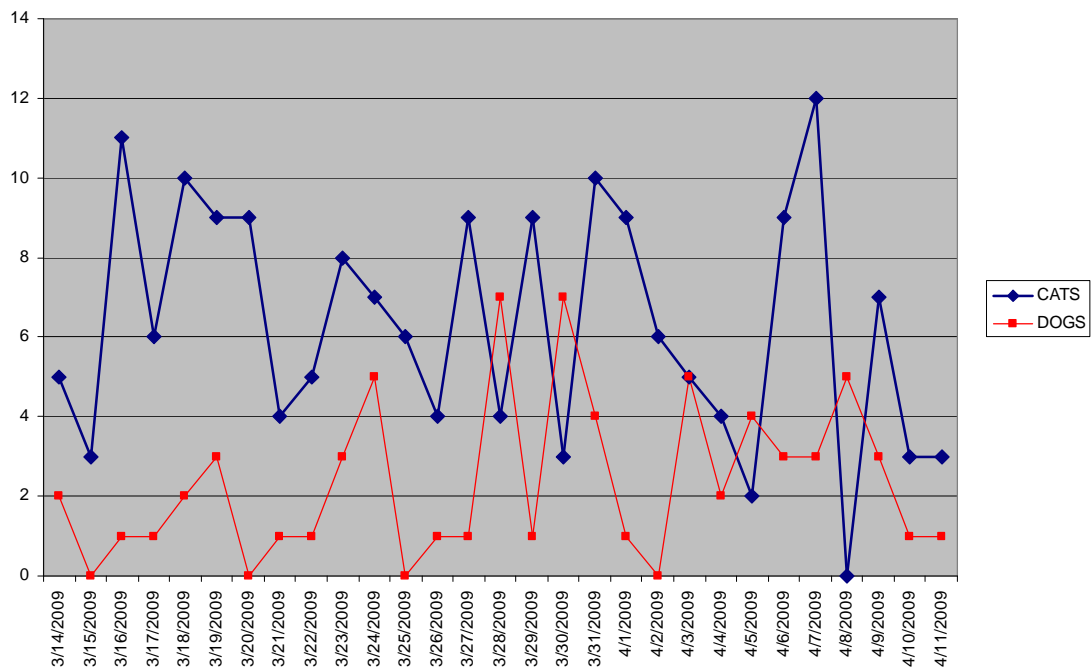


* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

** **Red Alerts are not indicated on this graph.**

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.

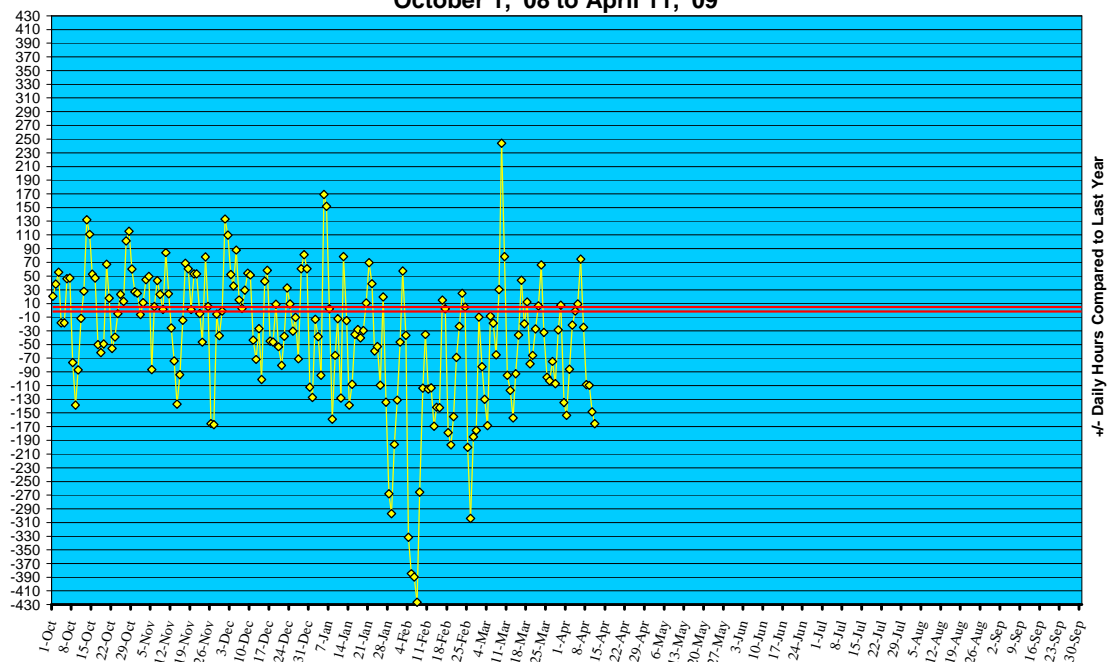
Dead Animal Pick-Up Calls to 311



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/08.

**Statewide Yellow Alert Comparison
Daily Historical Deviations
October 1, '08 to April 11, '09**



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in March 2009 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (Apr 5- April 11, 2009):	09	0
Prior week (Mar 29 – Apr 4, 2009):	18	0
Week#14, 2008 (Mar 30 – Apr 5, 2008):	17	0

1 outbreak was reported to DHMH during MMWR Week 14 (April 5- 11, 2009):

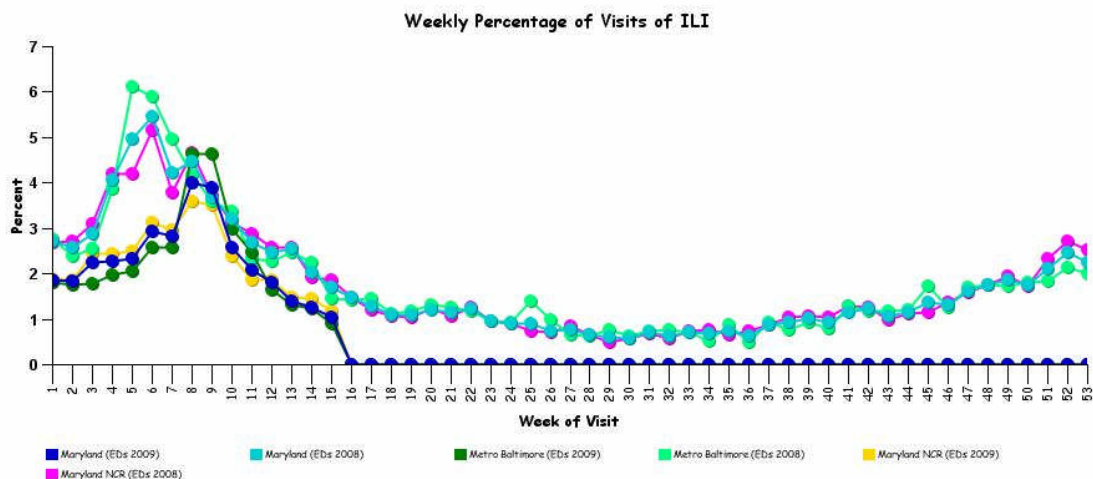
1 Gastroenteritis outbreak

1 outbreak of GASTROENTERITIS associated with a Camp

MARYLAND SEASONAL FLU STATUS: Influenza activity in Maryland for Week 14 is LOCAL. During Week 14, 65 confirmed cases of influenza were reported to DHMH.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: <http://bioterrorism.dhmm.state.md.us/flu.htm>

WHO update: As of April 8, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 417, of which 257 have been fatal. Thus, the case fatality rate for human H5N1 is about 62%.

AVIAN INFLUENZA, RACCOONS, SEROLOGY (JAPAN): 09 April 2009. The report on finding positive serological reactions in sera of 10 out of 988 wild raccoons in Japan requires further information before we can conclude that raccoons are a threat for the introduction of H5N1 avian influenza virus into chicken farms that would warrant the imposition of countermeasures. Firstly, which serological test(s) were used, and did they reveal reactions to both the H5 and the N1 components of the virus? Is there any information on the reliability of the test used, presumably standardized for testing avian sera, when used with serum from raccoons? Is there any estimate of sensitivity or specificity? This question is particularly pertinent, because if the 10 reactions found are considered to be false positive reactions, then this would still give the test about 99 percent specificity, a figure that is acceptable for many serological tests so long as the results are interpreted with care. In this report, it appears that not all reacting sera were from raccoons in areas where H5N1 infection in birds was known to have occurred. Further, it appears that there is no clustering of reactors. Both these points raise the concern that the reactions are false positives, but further testing, such as with western blots, could clarify this. If the reactions in the test(s) are true indications of specific antibody, was this antibody produced in response to infection of the raccoons or simply due to their exposure to viral antigen in scavenged, infected birds? Was there been any attempt to demonstrate the presence of infectious virus in any of the tested raccoons? Whereas the presence of antibody in an animal is often equated with evidence of prior infection, it may also be due to exposure to antigen without actual infection or, as suggested in the article, due to maternal transfer. It has been shown that raccoons in the USA can be infected with avian influenza viruses and that those in the wild have antibodies to a range of different hemagglutinin types (Hall et al 2008). However, animals have been shown to develop antibodies to other viruses present in high titre in scavenged prey, even though the scavenging animal may not become infected. For example, antibodies to the rabbit calicivirus causing rabbit hemorrhagic disease have been found in European foxes scavenging rabbits that have died of this disease and, under experimental conditions, in foxes fed on infected rabbit liver (Leighton et al 1995), but no evidence of infection in foxes has been found. It may well be that raccoons in Japan need to be considered when designing methods to prevent introduction of H5N1 to chicken farms, but more information is needed.

AVIAN INFLUENZA, HUMAN, WHO (EGYPT, VIET NAM): 08 April 2009. The Ministry of Health of Egypt has reported 3 new confirmed human cases of avian influenza. The 1st case is a 2-year-old boy from Kom Hamada District, El Behira governorate. He developed symptoms on 27 Mar 2009 and was admitted to Naaora Fever Hospital on the 30 Mar 2009, where he was started on oseltamivir the same day. He remains in a stable condition. The 2nd case is also a 2-year-old boy from the same district and was detected through the investigation around the above-mentioned case. He developed symptoms on 31 Mar 2009 and was admitted to Damanhor Fever Hospital on 1 Apr 2009, where he was started on oseltamivir the same day. He remains in a stable condition. Both boys had contact with sick/dead poultry prior to illness onset. Close contacts of both boys have been identified, and none have shown symptoms of the infection. The 3rd case is a 6-year-old boy from Shubra El Khema District, Qaliohia [Al alyubiyah] governorate. He developed symptoms on 22 Mar 2009 and was admitted to Ain Shams University Hospital on 28 Mar 2009, where he was started on oseltamivir on 3 Apr 2009. He was exposed to sick/dead poultry prior to illness onset. He is in a critical condition. For all of the 3 cases reported above, infection with H5N1 avian influenza virus was tested positive by the Egyptian Central Public Health Laboratory and subsequently confirmed by the U.S. Naval Medical Research Unit No. 3 (NAMRU-3). Of the 63 cases confirmed to date in Egypt, 23 have been fatal.

AVIAN INFLUENZA, HUMAN (EGYPT): 06 April 2009. A 6-year-old Egyptian boy has contracted the highly pathogenic bird flu virus, the 6th case in a month in the most populous Arab country, state news agency MENA said on Sunday [5 Apr 2009]. MENA stated the boy resided in the Nile Delta province of Qalyubia. His case brings to 63 the number of confirmed cases of the H5N1 avian flu virus in Egypt, which has been hit harder by bird flu than any other country outside of Asia. Health Ministry spokesman Abdel Rahman Shahine said the boy started suffering symptoms 2 weeks ago and was admitted to hospital a week later, where he was treated with the antiviral drug Tamiflu. The boy is in a critical condition and is breathing with the aid of an artificial respirator, MENA said. On Friday [3 Apr 2009], Egypt reported a 21-month-old boy had contracted bird flu. Since 2003 the H5N1 avian influenza virus has infected at least 410 people in 15 countries and killed 254 of them. It has killed or forced the culling of more than 300 million birds in 61 countries in Asia, the Middle East, Africa and Europe. Some 23 Egyptians have died after contracting the virus, most after coming into contact with infected domestic birds in a country where roughly 5 million households depend on domestically raised poultry as a significant source of food and income. While H5N1 rarely infects people, experts say they fear it could mutate into a form that people could easily pass to one another, sparking a pandemic that could kill millions.

AVIAN INFLUENZA, H7 (GERMANY): 06 April 2009. 17000 turkeys will be culled on a fattening unit in the district of Kleve after a preliminary test revealed the presence of an LPAI H7 virus. The H7 subtype of avian influenza is probably a virus with low morbidity and mortality rate for poultry, as the district of Kleve on Friday [3 Apr 2009] announced. Further samples are investigated by the NRL (Friedrich-Loeffler-Institut) on the island of Riems and results are expected early next week [beginning 6 Apr 2009]. The application of further precautionary measures, such as implementation of restriction zones, and their scope depend upon the laboratory results.

AVIAN INFLUENZA, POULTRY, H7 (USA, KENTUCKY): 05 April 2009. State and federal authorities are investigating a finding of suspected non-pathogenic or low-pathogenic avian influenza in a single broiler/breeder poultry farm in western Kentucky. The strain poses minimal risk to human health and is not the high pathogenic strain associated with human and poultry deaths in other countries. State Veterinarian Robert C. Stout has quarantined the farm, which produces hatching eggs for Perdue Farms Inc. Perdue plans to depopulate 20 000 chickens in 2 houses on the farm. "The state and federal government and Perdue are acting aggressively to contain and eliminate the disease," Dr. Stout said. "There is no evidence that any infected poultry are in the human food supply as a result of this infection. We will do what is necessary to minimize the disruption to overseas trade." "I have been in constant contact with state, federal and industry officials since this came to light," Agriculture Commissioner Richie Farmer said. "The people of Kentucky and our trading partners should rest assured that we are doing everything possible to address the situation." The Kentucky Department of Agriculture is conducting surveillance on backyard flocks within a 2-mile radius of the farm. A minimal drop in egg production at the farm was noticed in mid-March 2009. Perdue's veterinary services laboratory took samples from chickens at the farm and found antibodies for avian influenza. Testing by the National Veterinary Services Laboratory in Ames, Iowa resulted in a presumptive positive finding for the H7 strain. Subsequent testing by NVSL and the Breathitt Veterinary Center in Hopkinsville confirmed the finding. No virus has been isolated, and no poultry deaths have been found in connection with the infection. Avian influenza is a virus that affects domestic poultry and some wild birds. It is spread to healthy birds by direct contact with infected birds or infected material, often through feces from infected birds. Avian influenza is not transmitted through eggs. Low-pathogenic avian influenza causes little if any illness in poultry and is rarely fatal to poultry.

NATIONAL DISEASE REPORTS:

No New disease outbreaks were reported to CDC Critical Biological Agents for MWWR week 14.

INTERNATIONAL DISEASE REPORTS:

LISTERIOSIS, FATAL, MEAT SUSPECTED (CHILE): 11 April 2009. The Undersecretary of Health, Jeannette Vega, has confirmed that the source of a new strain of listeriosis is currently being investigated at a specific meat company located in the northern sector of Santiago after the bacteria was determined to have caused the death of 1 person, as well as 2 miscarriages. "We are probing a specific industry in the northern area involved in the meat packing business. Just like last year [2008] with Chevrita [a Chilean brand of goat cheese], this year [2009] we have already identified a possible source for the outbreak based on its characteristics and as soon as we have results, we will release them," the ministry told Radio Cooperativa. Vega warned that as long as the origin of contamination remains unknown, people should continue to follow a series of recommendations from the Ministry of Health that include, "washing your hands, preventing cross-contamination by keeping foods separate, consuming only pasteurized products, washing fruits and vegetables even if they have been packaged, as well as consuming only meat and fish that have been cooked." The undersecretary stated that, so far this year [2009], there have been a total of 13 reported cases of listeriosis, 8 of which "are related to strain 001, which began to appear in October of last year [2008]." (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

TRYPANOSOMIASIS, FOODBORNE, GUAVA JUICE (VENEZUELA): 06 April 2009. Yesterday the Minister of Health, Jesus Mantilla, confirmed that Chagas disease is the disease that is attacking the population of Chichiriviche de la Costa, in the western part of the state of Vargas. The head of the Ministry of Health was in the area and stated that it was transmitted through the ingestion of contaminated guava juice, producing the outbreak of illness in the area, that affected 47 students and three teachers from the morning shift of the Romulo Monasterios state school. Similarly, the minister reiterated the statements made by the governor of Vargas, Jorge Garcia Carneiro, the epidemiologic "fence" erected to stop the epidemic that occurred in the area, because, as noted, there is no risk of spread. For this disease, which for over 4 weeks was affecting the population and increasing numbers of patients, killing 3 children ages 7, 9 and 12 years. However, 35 other children remain hospitalized in the La Guaira Social Security [hospital], the Pariata Periferico [health facility], the Perez Carreno [health facility] and the University Clinic. Doctors from this hospital reported that 15 patients from the area have been admitted, and that the problem is present from [the events surrounding carnival - Mardis Gras]. It was learned that there is a patient in serious condition. Although the possibility of transmission in the zone was ruled out, the residents of Chichiriviche reported that the usual vacationers to the zone have not arrived. [The affected area is a beach resort frequented by vacationers. The week ending in Easter Sunday is known as Semana Santa in Latin American countries. It is a vacation week, and locations such as Chichiriviche are usually filled with vacationers coming for the week. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

FOOD POISONING, FRIED RICE (MALAYSIA): 06 April 2009. Thirty one pupils of SK Taman Seri Wang here came down with food poisoning after eating fried rice at the school's canteen this morning. It is learned that a pupil was admitted to the Sultan Abdul Halim Muadzam Shah Hospital here while the rest received outpatient treatment. The Year 4 to Year 6 pupils started to fall ill about an hour after they had their breakfast during school's recess hour at 10 AM. No candidates contesting for the Bukit Selambau State seat by-election were present as the school is located outside the constituency. State Health department deputy director Dr Shahidan Hashim, when contacted, declined to comment as he is still waiting for the Kuala Muda district health department report on the matter. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://bioterrorism.dhmm.state.md.us/>

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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